

CLAIMS

1 14. (canceled)

1 15. (new) An integrated structure having a piezoelectric device, the integrated structure
2 comprising:

3 a substrate having an cavity;

4 a piezoelectric layer integral to the piezoelectric device and supported on the substrate, such
5 that the piezoelectric layer spans the cavity in the substrate to form a suspended membrane portion of the
6 piezoelectric layer; and

7 one or more conducting elements integral to the piezoelectric device and mounted on the
8 suspended membrane portion of the piezoelectric layer.

1 16. (new) The device of claim 15, wherein the piezoelectric device comprises a thin film
2 resonator.

1 17. (new) The device of claim 15, wherein the piezoelectric device comprises a T-Cell
2 building block.

1 18. (new) The device of claim 15, wherein:

2 the suspended membrane portion of the piezoelectric layer has an inner side facing towards the
3 cavity in the substrate and an outer side facing away from the cavity in the substrate;

4 at least one conducting element is mounted on the inner side of the suspended membrane portion
5 of the piezoelectric layer; and

6 at least one conducting element is mounted on the outer side of the suspended membrane portion
7 of the piezoelectric layer.

1 19. (new) The device of claim 15, further comprising one or more conducting leads running
2 along the suspended membrane portion of the piezoelectric layer from one or more corresponding
3 conducting elements towards an edge of the piezoelectric layer, wherein:

4 the integrated structure is mounted in an edge-on fashion within a recess of a package having one
5 or more bonding leads mated to the one or more conducting leads of the piezoelectric device.

1 20. (new) The device of claim 19, wherein each bonding lead of the package is mated to the
2 corresponding conducting lead of the piezoelectric device by a reflowed solder bump.

1 21. (new) An integrated structure having an electronic device, the integrated structure
2 comprising:

3 a substrate having an cavity;

4 a layer supported on the substrate, such that the layer spans the cavity in the substrate to form a
5 suspended membrane portion of the layer;

6 one or more elements integral to the electronic device and mounted on the suspended membrane
7 portion of the layer; and

8 one or more conducting leads running along the suspended membrane portion of the layer from
9 one or more corresponding elements of the electronic device towards an edge of the layer, wherein:

10 the integrated structure is mounted in an edge-on fashion within a recess of a package
11 having one or more bonding leads mated to the one or more conducting leads of the electronic device.

1 22. (new) The device of claim 21, wherein the layer is an etch-resistant layer that is not
2 integral to the electronic device.

1 23. (new) The device of claim 21, wherein the layer is a piezoelectric layer that is integral to
2 the electronic device.

1 24. (new) The device of claim 21, wherein:

2 the suspended membrane portion of the layer has an inner side facing towards the cavity in the
3 substrate and an outer side facing away from the cavity in the substrate;

4 at least one conducting element of the electronic device is mounted on the inner side of the
5 suspended membrane portion of the layer; and

6 at least one conducting element of the electronic device is mounted on the outer side of the
7 suspended membrane portion of the layer.

1 25. (new) The device of claim 21, wherein each bonding lead of the package is mated to the
2 corresponding conducting lead of the electronic device by a reflowed solder bump.